

A Clinical Evaluation of Medical Information Transfer System using MOD

Tetsuo KAWAMURA, and Tetsuo OKABE/SUZUKA Univ.of Medical Sci.& Tech.
Masayuki HAMADA, and Kazuyoshi NAKAMURA/SUZUKA General Hosoi tal
Takashi KODERA/KODERA Clinic, and Hideo SAIJOH/SAOJOH Clinic
SUZUKA City, MIE Pref., JAPAN

INTRODUCTION

The Image Save and Carry "IS&C" system is a standard for medical image storage and it uses 5.25 inch magnet-optical disk(MOD) for the storage media, in Japan. It has been used mainly in-house application of hospitals.

The purpose of this study is to develop the cooperating system between one city hospital and two clinics by transferring medical informations, using this IS&C system. We have improved the IS&C system for the use of the cooperating system. We report the new system and the result of trial use in the Suzuka city area.

MATERIAL and METHOD

System Configuration

In the new cooperating system, one MOD is allocated to one patient, which files a patient's information, diagnostic images, biochemical data, another clinical examinations data and treatment data. The image data include following modalities; Xray, CT, MRI, US and DSA. A patient with an advanced diseases is transferred together with MOD from clinic to the city hospital. Then the medical information on MOD is set into display-station for medical consultation. A medical specialist of city hospital can immediately access information such as condition and focus of patient on the screen of display-station.

We have also developed programs for retrieval of medical data on the display-station. The radiologist as well as physician and homedocor feel easy to operate and easy to retrieve the patient data on the display-station.

Hardware: RICOH Magnet-Optical Disk Drive specified for IS&C, Hitachi Floral010 PC, Epson GT-8000 ImageScanner, VXR-12 Film Digitizer

Software: Visual BASIC, Visual C++, MS-Windows 3.1, MS-DOS 6.2/V, Utilities of IS&C system

RESULTS

Trial use of improved new system

We have installed the improved IS&C system into the one hospital and two clinics. Then we have started the trial use, and now 23 patients data have been kept in the system.

The hospital and the clinic have been making clinical evaluations of this system. It is found to be useful for both doctors and patients to transfer patient together with MOD between hospital and clinics. Also less exposure and less expenditure for patient have been recognized from evaluation of for this system.

CONCLUSION

We have improved the IS&C system and have put into practical use for cooperative medical care in Suzuka Area.

We also can get the cases, suitable for improved IS&C system.

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REFERENCE

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